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**OBJECTIVES:** The purpose of this study is to provide economic information comparing olanzapine- and haloperidol-treated patients from the subset of French patients that participated in a large, international, randomised clinical trial in schizophrenia.

**METHODS:** Patients were evaluated from initiation until discontinuation of treatment or completion of the 54-week study. The primary clinical measure was 'marked clinical response' (derived from BPRS total scores). The secondary measure was 'marked clinical improvement' (derived from CGI severity of illness scores). The primary economic measure was mean per diem, per patient total direct medical costs.

**RESULTS:** A total of 275 French patients were included in the study. Demographics and other baseline differences between olanzapine- and haloperidol-treated patients were not statistically significant. Olanzapine-treated patients ( $205 \pm 142$  days) experienced significantly ( $p < 0.001$ ) longer valuation periods than did haloperidol-treated patients ( $132 \pm 129$  days). Olanzapine-treated patients (54%) were significantly ( $p = 0.03$ ) more likely to experience a marked clinical response than were haloperidol-treated patients (40%). Olanzapine-treated patients (69%) were significantly ( $p = 0.02$ ) more likely to experience a marked clinical improvement than were haloperidol-treated patients (54%). The mean per diem, per patient total direct medical costs were statistically lower ( $p = 0.033$ ) for the olanzapine-treated patients ( $F619 \pm 509$ ) compared with the haloperidol-treated patients ( $F756 \pm 478$ ).

**CONCLUSION:** Olanzapine treatment was associated with significantly better clinical outcomes and significantly lower per diem total direct medical costs than was haloperidol treatment. The findings in this study indicate that olanzapine is cost-effective compared with haloperidol for the treatment of schizophrenia. These findings are of increased relevance in France and add to the existing, large body of evidence supporting olanzapine's cost-effectiveness relative to typical antipsychotics.

**CN3**

### **COST-EFFECTIVENESS OF RT-PA IN TREATMENT OF ACUTE ISCHAEMIC STROKE IN UK**

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**OBJECTIVE:** To estimate the cost-effectiveness of using rt-PA in treating acute ischaemic stroke in the UK.

**METHOD:** We used a decision-analytic model (Stroke Outcome Model) to estimate the long term health and cost consequences of administering rt-PA to patients with acute ischaemic stroke, based on the pooled results of three major trials: ECASS-1, ECASS-2 and NINDS (2044 patients in total). Long-term consequences of stroke were based on

the Oxfordshire Community Stroke Project. Disability was defined using the modified Rankin scale (disabled: categories 3–5). Utilities for disability states were taken from published studies of stroke survivors. Resource use measured from a health and social service perspective, was based on published studies and a panel of clinical experts. Unit costs (1996) were obtained from national sources. Costs and health outcomes were discounted at 6% pa.

**RESULTS:** For patients treated within 6 hours of stroke onset the probability of symptomatic intracranial haemorrhage (SICH) was 12.6% (rt-PA group) and 3.7% (placebo group). In the absence of SICH the probability of death within 90 days was 10.1% and 14.1% and the proportion of survivors who were disabled was 38.2% and 49.6% respectively. The model predicted that over 5 years from the incident stroke patients in the rt-PA group on average lost 0.04 life-years but gained 0.31 disability-free life-years and 0.13 QALYs. This resulted in cost savings of £2,500–£3,000 per treated patient, depending on how costs of initial acute care were included. Improvements in health outcome and cost savings were greater for the group treated with rt-PA within 3 hours of stroke onset.

**CONCLUSIONS:** Trial results suggest that rt-PA is likely to be cost saving in patients treated within 6 hours of onset of acute stroke. A comprehensive analysis needs to consider the fixed costs and wider policy implications of introducing and maintaining a local thrombolysis service.

**CN4**

### **ECONOMIC APPROACH FOR ASSESSING THE OVERALL COST OF MANAGING ISCHEMIC EVENTS (MYOCARDIAL INFARCTION STROKE) IN ATHEROTHROMBOTIC PATIENTS: A EUROPEAN OVERVIEW**

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**OBJECTIVES:** The management of atherothrombotic patients is a heavy burden on the Health budget. As MI and IS patients need acute as well as chronic care, a 2-year period was considered for studying local treatment patterns and the resulting costs (hospital & ambulatory costs). The overall cost of managing an ischemic event (MI,IS) was divided in acute (Ac) and follow-up (Fup) costs over 2 years. **METHODS:** France(F), Belgium(B), Switzerland(CH), Sweden(SW), Italy(IT), Spain(SP), Portugal(P) and Austria(A) were involved in the study. The management of ischemic events was analysed during the acute phase and the subsequent 6-month periods. A decision tree was used; assumptions concerning patient management and resources utilization were based on currently available local and international literature, official national statistics and local expert opinions (Delphi panel). The costing was performed by using Diagnosis Related Groups (IT,SW,P,A), hospital data bases and national tariffs (F, B, CH, SP).

**RESULTS:** Differences between countries about the average clinical management patterns for a 2-year period are shown. The economic impact concerns the overall cost (Ac + Fup) as well as the breakdown between Ac and Fup costs. For MI, overall costs range from 9513 Euros in Belgium to 18294 Euros in Austria. Weights of the follow-up costs range from 33% in Portugal to 53% in Austria. For IS, overall costs range from 5607 Euros in Austria to 56370 Euros in Switzerland. Differences also concern the weight of the Fup costs (from 17% in Portugal to 75% in France).

**CONCLUSION:** Differences in overall cost and cost breakdown can be explained by local treatment pattern specificities and by the availability of specific and well-adapted structures for patients rehabilitation. The follow-up of an ischemic event should not be neglected in the global economic burden assessment.

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### THE COST OF INPATIENT TREATMENT OF SCHIZOPHRENIA: A STUDY OF TWO LEADING ATYPICAL ANTIPSYCHOTICS

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**OBJECTIVES:** To i) compare the relative costs of two leading atypical antipsychotics and ii) examine the contribution of cost drivers of inpatient schizophrenia care.

**METHODS:** Data were pooled from a series of retrospective, single centre studies across 11 centers within 5 countries. Only patients with a diagnosis of schizophrenia or schizoaffective disorder were considered.

**RESULTS:** A total of 601 patients received either risperidone (RIS; n = 290) or olanzapine (OLA; n = 311) as first line therapy after admission. There were no baseline differences between both groups. The two products showed equivalent efficacy rates (RIS: 78%, OLA: 77%; p = 0.8) but RIS patients achieved efficacy sooner (median = 10 days) than OLA patients (median = 18 days; p = 0.001). The mean modal daily doses were 4.9 mg (RIS) and 14.9 mg (OLA). OLA patients were more expensive (USD) than RIS patients in both daily treatment costs (RIS: mean = 3.3; OLA: mean = 6.5; p = 0.0001) and daily all medication costs (RIS: mean = 4.2; OLA: mean = 7.3; p = 0.0001). The contribution of cost drivers was examined through regression on the two key inpatient cost outcomes, daily all medications costs (log transformed) and length of stay (LOS; censored Cox regression). Daily all medication costs were independently affected by prior hospitalizations (+), choice of atypical (OLA higher than RIS) and dose of atypical (+) and these findings were over and above certain intermediate factors. Length of stay was affected by prior hospitalizations (-) and dose of atypical (+) again over and above certain intermediate factors. Despite being counter-intuitive, the data clearly indicate that 1<sup>st</sup> episode patients stayed longest and the duration of stay continued to reduce with further admissions.

**CONCLUSION:** The choice and dose of atypical is a major driver of inpatient therapy cost. In addition the prior disease span and severity, as measured by previous hospitalizations, is an important predictor of inpatient care costs.

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### EFFECTIVENESS OF PHARMACOLOGICAL TREATMENT OF HYPERTENSION UNDER EVERYDAY CIRCUMSTANCES WITH REGARD TO THE REDUCTION OF STROKE INCIDENCE

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**BACKGROUND:** Some observational studies have not confirmed the beneficial effects of antihypertensive drug treatment on the incidence of stroke and coronary heart disease as demonstrated in randomized controlled clinical trials (RCTs). This contradiction is probably due to the biased comparison in most observational studies between treated hypertensive patients and prognostically different reference groups such as normotensives or untreated hypertensives regardless of their severity of hypertension and co-existence of other cardiovascular risk factors.

**OBJECTIVE:** To assess the effect of the pharmacologic treatment of hypertension under everyday circumstances on the incidence of stroke.

**METHODS:** Approximately 45 000 men and women aged >20 years were examined in 2 population-based studies in the Netherlands. A cohort of 2616 hypertensive subjects who were either pharmacologically treated for hypertension (n = 1318) or untreated hypertensives who were "candidates" for pharmacologic treatment on the basis of the severity of their hypertension and the presence of other cardiovascular risk factors (n = 983) was followed up for a mean duration of 4.6 years and follow-up was complete for 2369 (91%) subjects.

**RESULTS:** In this observational study, compared to untreated hypertensive subjects who were "candidates" for pharmacologic treatment, subjects who were pharmacologically treated for hypertension had, after adjustment for differences in prognostic factors, a 39% [95% confidence interval (CI): 3–61%] reduced risk of stroke. About 46 [95% CI: 29–599] hypertensive patients need to be treated pharmacologically for 5 years to prevent one stroke in the general Dutch population.

**CONCLUSION:** When a prognostically comparable reference group is used, the pharmacological treatment of hypertension under everyday circumstances appears to be effective in the reduction of the incidence of stroke. The